

Remarks

Administrative Overview

Initially, claims 1–18 were presented for examination. In the Office Action mailed on December 22, 2004, claims 1, 13 and 15–18 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,763,380 to Mayton et al. (hereinafter “*Mayton*”). Claims 2–4 and 14 were rejected as unpatentable under 35 U.S.C. § 103(a) over *Mayton* in view of U.S. Patent No. 6,098,195 to Northcott et al. (hereinafter “*Northcott*”). Claims 5–12 were rejected as unpatentable under 35 U.S.C. § 103(a) over *Mayton* in view of U.S. Patent No. 6,397,359 to Chandra et al. (hereinafter “*Chandra*”).

The Applicants respectfully traverse these rejections and request reconsideration of the claims in light of the discussion below. Each of the outstanding objections and rejections is addressed in the order in which they appear in the Office Action.

The Drawings and Specification, as Amended, Addresses Outstanding Objections 3, 4 and 5

The drawings were objected to because they included reference characters 41 and 53 which were not used in the description. Applicants have amended the specification to include these reference characters.

The drawings were objected to because they did not include reference character 10 which was mentioned in the description. Applicants have provided a replacement sheet, with FIG. 1 now including reference character 10, and a marked up version of FIG. 1 clearly indicating the change.

The specification was objected to due to other informalities, which have been corrected in the foregoing amendments.

Accordingly, Applicants submit that the amendments to the drawings and specification fully address the outstanding objections and request their withdrawal.

Claims 1, 13, 15-18 and the Claims that Depend Therefrom Are Allowable

Independent claims 1, 13, and 15–18 were rejected under 35 U.S.C. § 102(e) as anticipated by *Mayton*. According to MPEP 2131, a claim is anticipated only if each and every

**Amendments to the Drawings**

The attached sheet of drawings includes changes to FIG. 1. This sheet, which includes FIG. 1, replaces the original sheet including FIG. 1. In FIG. 1, previously omitted element 10 has been added.

element set forth in the claim is found in a single prior art reference. The Applicants respectfully submit that *Mayton* fails to meet this exacting standard as applied to independent claims 1, 13, and 15–18, and claims 2–12 and 14, which depend therefrom, and hereby traverse this rejection.

a. Claims 1 and 16

Applicants' independent claims 1 and 16 are directed to monitoring an element in a computer network by, in part “establishing a sliding window in time” and “repeatedly generating a time above threshold value, said time above threshold value being a measure of an amount of time during which the monitored variable exceeded the threshold during the sliding window of time” and “detecting when the time above threshold value exceeds a condition window value” (emphasis added). Applicants respectfully submit that *Mayton* does not teach or suggest measuring the amount of time that a condition exists, or detecting when the existence of that condition exceeds a condition window value.

First, Applicants understand the rejection to say that the claimed “time above threshold” is purportedly satisfied by *Mayton*, describing, for example, “[n]etwork performance measurements” that are “repeatedly obtained” (col. 3 line 12), periodically calculating “response times,” (col. 8 line 4), “multiple consecutive readings,” (col. 10 line 29), and “repeatedly (a number of times over a baseline time period which may be a sliding window type time period) determine a routing associated with obtained network performance measurements.” (Col. 11 line 61). The network tests described in *Mayton* represent discrete events that are scheduled at discrete points in time (see, for example FIG. 5) to measure latency and other metrics “between a first device and a second device.” (Col. 3 line 50). The time measurements described in *Mayton* are not amounts of time a measurement exceeds a threshold, but instead “response time, transaction time, availability, and throughput” of a routes through the network. (Col. 6 line 2).

Applicants submit that such monitoring, even when done to detect “multiple consecutive readings above the threshold” as described at column 10 line 28, are merely a string of one-dimensional, independent, discrete events that, without external instructions to repeat the tests, are unable to continuously monitor a network element. Further, the “sliding window of time” described in *Mayton* refers to the time during which the routing tests are run (the “baseline time period”), not the duration of the test itself. In contrast, Applicants' claimed invention

continuously monitors a network element and determines a *two-dimensional* window (alarm scale and window duration) during which variable exceeds a threshold, not merely a set of discrete violations as described by *Mayton*, thus providing more accurate results to distinguish between true trends that impact network performance and mere anomalies.

Second, Applicants understand the rejection to say that the claimed “exceeding a condition window value” is purportedly satisfied *Mayton* describing, for example, detecting an exception event such as “a transition from a normal to a critical condition for a performance measurement and/or a connection failure” (col. 4 line 18), altering thresholds by “providing hysterises in threshold detection for exception events and/or requiring multiple consecutive readings above the threshold” (col. 10 line 24), and detecting exception events “through the use of threshold crossing detection based on user defined or automatically updated threshold criterion.” (Col. 12 line 12). The determination of exception events as described in *Mayton* is limited to detecting discrete events – that is, identifying specific instances where a particular measurement at a particular time violates a threshold – and thus limiting the analysis to a single scale measuring the magnitude of the violation. In contrast, Applicants’ invention compares measurements that represent element states during a *time window* to a *condition window value*, thereby adding a second, time-based scale, and thus allowing two degrees of analysis.

Therefore, *Mayton* fails to teach or suggest all of the elements presented by Applicants’ independent claims 1 and 16. Accordingly, the Applicants respectfully submit that independent claims 1 and 16, and claims 2–12, which depend therefrom, are patentable over *Mayton*.

b. Claims 13 and 17

Similar to claims 1 and 16, Applicants’ independent claims 13 and 17 are also directed to monitoring an element in a computer network by, in part, “establishing a sliding window in time” and “repeatedly generating a time above threshold value, said time above threshold value being a measure of an amount of time during which the monitored variable exceeded the threshold during the sliding window of time” and “detecting when the time above threshold value exceeds a condition window value” (emphasis added).

Applicants respectfully submit that, for at least the reasons stated above, *Mayton* fails to teach or suggest all of the elements presented by Applicants’ independent claims 13 and 17.

Accordingly, the Applicants respectfully submit that independent claims 13 and 17, and claim 14, which depends therefrom, are patentable over *Mayton*.

c. Claims 15 and 18

Applicants' independent claims 15 and 18 are directed to displaying historical performance of an element on a network by, in part, "deriving a measure of performance for the element from its monitored performance" "for each of a plurality of time slots" and "for each of the plurality of time slots, computing a variability for the measure of performance" (emphasis added). Applicants respectfully submit that *Mayton* does not teach or suggest measuring the performance of a network element for a plurality of time slots, or computing a variability of the measure of performance of the element.

Applicants understand the rejection to say that the claimed "plurality of time slots" is purportedly satisfied by *Mayton*, describing, for example, "timing measurements." (Col. 7 line 62). The timing measurements of *Mayton* are, simply put, the amount of time necessary to traverse a particular route through a network connecting two network endpoints at a particular point in time. In contrast, Applicants' invention measures the performance of a network element for a plurality of time slots – implying that the measurements reflect element status for a period of time, not merely at a particular point in time. As stated above with respect to claims 1 and 16, such an approach provides an additional degree of freedom when calibrating alarm thresholds and thus monitoring network performance in two dimensions by including measurement scale and measurement duration.

Applicants further understand the rejection to say that the claimed "variability" is purportedly satisfied by *Mayton*, describing, for example, "an average time trend over a selected window." (Col. 14 line 5). Applicants respectfully submit that an average trend over time refers to a series of averages plotted against a time scale. Applicants' invention goes beyond merely plotting averages over time by calculating the variability for the element performance measurements. By doing so, Applicants' invention can, for example, indicate the degree to which the performance of a particular network element fluctuates during a particular time slot, using, as one example, a standard deviation measurement, thus providing greater insight into its performance.

Applicants respectfully submit that, for at least the reasons stated above, *Mayton* fails to teach or suggest all of the elements presented by Applicants' independent claims 15 and 18. Accordingly, the Applicants respectfully submit that independent claims 15 and 18 are patentable over *Mayton*.

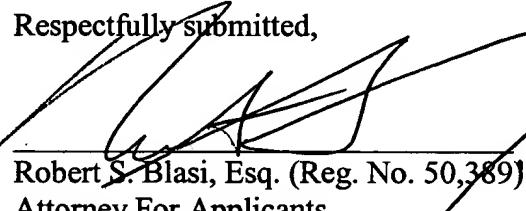
**Conclusion**

Applicants respectfully submit that the above amendments conform with the guidelines of 37 C.F.R. § 1.84(p)(5). These changes represent no substantive amendment to either the specification or claims as originally drafted and submitted. No new material has been added.

In light of the foregoing, we respectfully submit that all of the pending claims are in condition for allowance. Accordingly, we respectfully request reconsideration, withdrawal of all grounds of rejection and objections, and allowance of all of the pending claims in due course.

If the Examiner believes that a telephone conversation with the Applicants' attorney would be helpful in expediting the allowance of this application, the Examiner is invited to call the undersigned at the number identified below.

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Respectfully submitted,  
  
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 Docket No. CON-005  
 Reply to Office Action of December 22, 2004  
 Annotated Sheet Showing Changes

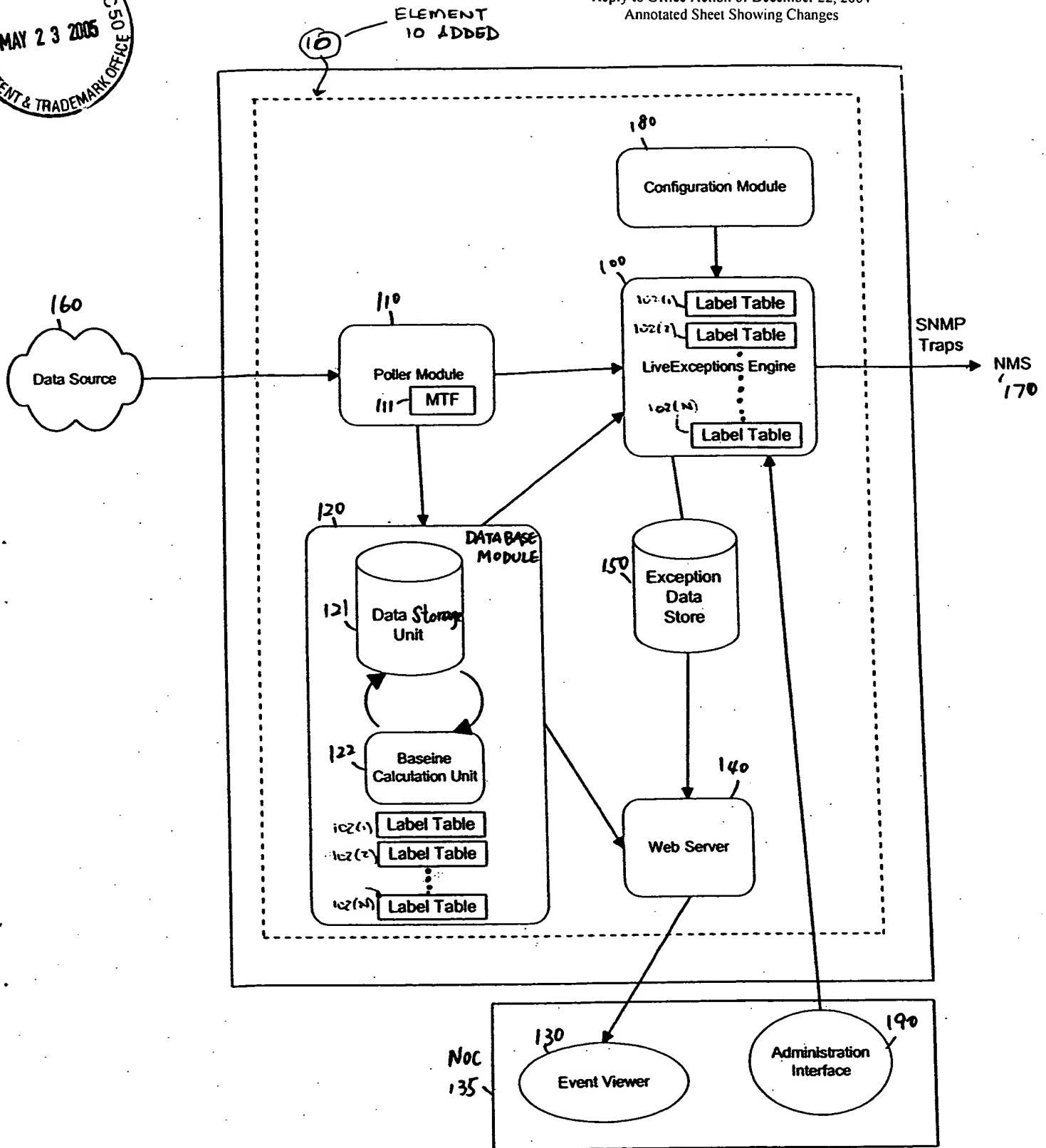


Fig. 1